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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,716	08/13/2001	Antoine J. Rouphael	2001P14759US	8933

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Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

AGHDAM, FRESHTEH N

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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07/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/929,716	Applicant(s) ROUPHAEL, ANTOINE J.	
	Examiner Freshteh N. Aghdam	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 5, 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-2 and 6 is/are rejected.
- 7) ☒ Claim(s) 3 and 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warke et al (US 6,516,025), and further in view of Segal (US 6,647,069).

As to claims 1-2, Warke discloses a method in a communication system comprising specifying an initial shaping filter (e.g. pre-equalizer; Fig. 8, block 54; Fig. 9, block 82); determining a level of error of a final shaping filter where said final shaping filter is obtained by processing signals associated with said initial shaping filter (e.g. by utilizing a least square optimization technique; Fig. 9) including generating a white noise data sequence (measuring inverse channel response inherently containing additive Gaussian white noise (AGWN) and some interference; Fig. 6; Abstract); updating final shaping filter coefficients at optimal some sampling points until the error metric is at or below a desired level by employing least square optimization technique (e.g. the error

metric is minimal; Fig. 9; Col. 18, lines 15-20); and configuring a transmit filter of a communication system. One of ordinary in the art would recognize that it is inherent for any filter to work at a specific sampling period/ rate; therefore, the pre-equalizer is updated at a specific sampling rate (e.g. optimal sampling points other than non-sampling points). Warke is not explicit about said pre-equalizer compensates for intersymbol interference; and also the communication system is a radio frequency communication system. Segal discloses a method for enhancing communication performance by configuring a transmit filter that compensates for intersymbol interference in a radio frequency communication system (Col. 1, lines 41-49; claim 5). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Segal with Warke for the reason stated above.

As to claim 6, Warke discloses a telecommunication device comprising: a shaping filter (e.g. pre-equalizer 26) adapted to shape the bitstream that is inherently operate at a specific sampling rate/ period (e.g. optimal sampling points other than non-sampling points), an initial shaping filter comprising a channel noise filter (Fig. 6) and interference, wherein said shaping filter adapted to minimize the error metric (e.g. error due to noise and interference; Fig. 8-9), coefficients for the initial shaping filter is specified based on a matched filter (e.g. inverse channel transfer function that is matched to the channel transfer function) and data sequence (e.g. noise and interference). Warke is not explicit about a coder to encode data prior to shaping; said pre-equalizer compensates for intersymbol interference; and also the communication system is a radio frequency communication system. Segal discloses a method for

enhancing communication performance comprising: a coder to encode data prior to shaping; configuring a transmit filter that compensates for intersymbol interference and as the result shapes the signal in a radio frequency communication system (Col. 1, lines 41-49; claim 5). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Segal with Warke for the reason stated above.

Allowable Subject Matter

Claims 3 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-5 and 10-11 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is 571-272-6037. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 17, 2007

Freshteh Aghdam
Examiner
Art Unit 2611


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER